

## **IN THE CLAIMS**

Amend the claims as follows.

Claims 1-15 (Canceled).

16. (new) An isolated carboxypeptidase enzyme, CPG2, in which an immunogenic region is modified to reduce immunogenicity to a mammalian immune system whilst retaining CPG2 activity, wherein the immunogenic region is selected from the group consisting of:

- (i) KIDGRGGK (SEQ ID NO.1) comprising residues 98-105 of SEQ ID NO.7;
- (ii) KEYGVVD (SEQ ID NO.2) comprising residues 157-163 of SEQ ID NO.7;
- (iii) YGVVD (SEQ ID NO.6) comprising residues 159-163 of SEQ ID NO. 7;
- (iv) KLADY (SEQ ID NO.3) comprising residues 191-195 of SEQ ID NO.7;
- (v) GAGK (SEQ ID NO.4) comprising residues 412 to the C-terminal residue 415 of SEQ ID NO.7;
- (vi) AG comprising residues 413-414 of SEQ ID NO.7; and
- (vii) EGGKKLVDK (SEQ ID NO.5) comprising residues 331-339 of SEQ ID NO.7.

17. (new) An isolated or purified Pseudomonas carboxypeptidase CPG2 enzyme wherein the C-terminus of the enzyme comprises an extension selected from the group consisting of a histidine tag, a myc tag and a myc-his tag.

18. (new) An isolated carboxypeptidase enzyme, CPG2, in which an immunogenic region is modified to reduce immunogenicity to a mammalian immune

system whilst retaining CPG2 activity, wherein the immunogenic region is selected from the group consisting of:

- (i) KIDGRGGK (SEQ ID NO.1) comprising residues 98-105 of SEQ ID NO.7;
- (ii) KEYGVRD (SEQ ID NO.2) comprising residues 157-163 of SEQ ID NO.7;
- (iii) YGVRD (SEQ ID NO.6) comprising residues 159-163 of SEQ ID NO. 7;
- (iv) KLADY (SEQ ID NO.3) comprising residues 191-195 of SEQ ID NO.7;
- (v) GAGK (SEQ ID NO.4) comprising residues 412 to the C-terminal residue 415 of SEQ ID NO.7;
- (vi) AG comprising residues 413-414 of SEQ ID NO.7; and
- (vii) EGGKKLVDK (SEQ ID NO.5) comprising residues 331-339 of SEQ ID NO.7;

wherein the C-terminus of the enzyme comprises an extension selected from the group consisting of a histidine tag, a myc tag and a myc-his tag.

19. (new) The carboxypeptidase enzyme of claim 16 wherein said enzyme is fused to an antibody other than an anti-CEA antibody.

20. (new) The carboxypeptidase enzyme of claim 17 wherein said enzyme is fused to an antibody other than an anti-CEA antibody.

21. (new) The carboxypeptidase enzyme of claim 18 wherein said enzyme is fused to an antibody other than an anti-CEA antibody.

22. (new) A method of preparing a fusion protein comprising a carboxypeptidase CPG2 enzyme of claim 17 and an antibody other than a CEA-antibody, comprising expressing a DNA sequence encoding said fusion operably linked to a promoter in a *Pichia pastoris* host cell, and recovering said fusion protein therefrom.

23. (new) A method of preparing a fusion protein comprising a carboxypeptidase CPG2 enzyme of claim 18 and an antibody other than a CEA-antibody, comprising expressing a DNA sequence encoding said fusion operably linked to a promoter in a *Pichia pastoris* host cell, and recovering said fusion protein therefrom.

24. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 16 and, as a second component, said carboxypeptidase.

25. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 17 and, as a second component, said carboxypeptidase.

26. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 18 and, as a second component, said carboxypeptidase.

27. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 19 and, as a second component, said carboxypeptidase.

28. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 20 and, as a second component, said carboxypeptidase.

29. (new) A kit comprising a first component which is a prodrug which can be converted to a cytotoxic drug by a carboxypeptidase of claim 21 and, as a second component, said carboxypeptidase.